

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



549463

(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/083081 A2

(51) International Patent Classification⁷:

B65G

(74) Agent: WILKE, James, A.; Foley & Lardner LLP, 777 East Wisconsin Avenue, Suite 3800, Milwaukee, WI 53202-5306 (US).

(21) International Application Number:

PCT/US2004/008080

(22) International Filing Date: 17 March 2004 (17.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/455,149 17 March 2003 (17.03.2003) US

(71) Applicant (for all designated States except US):
OSHKOSH TRUCK CORPORATION [US/US];
2307 Oregon Street, Oshkosh, WI 54902 (US).

(72) Inventors; and

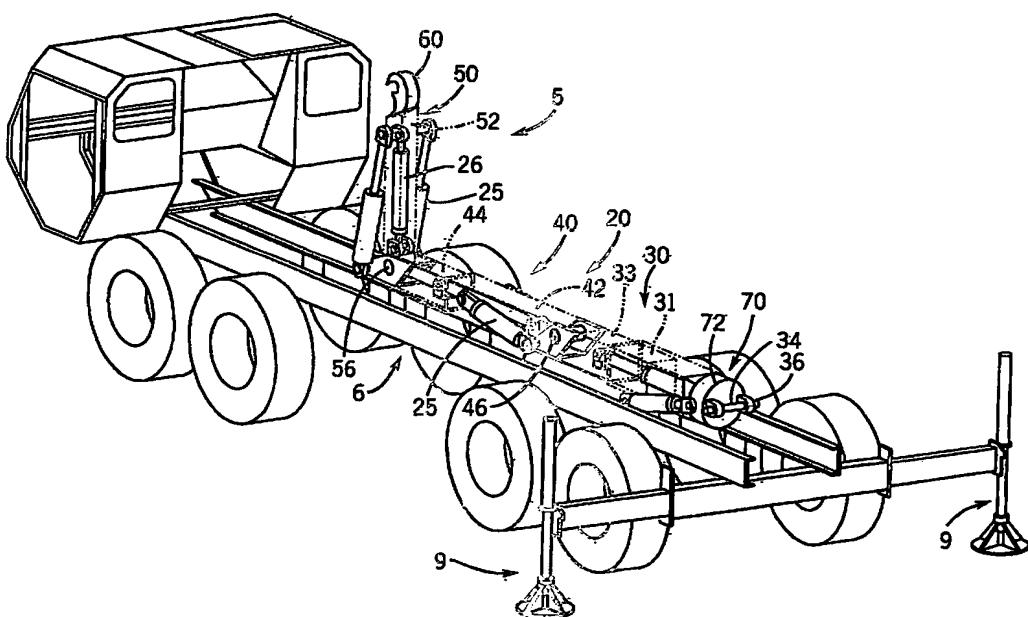
(75) Inventors/Applicants (for US only): ZHOU, Zhendong (Mike) [US/US]; 7921 West Rolling Field Drive, Mequon, WI 53097 (US). YANACEK, Michael [US/US]; 356 West 19th Avenue, Oshkosh, WI 54902 (US). MORROW, Jon, J. [US/US]; 1224 Kampo Court, Neenah, WI 54956 (US). GULLICKSON, James [US/US]; 2006 Kelly Street, Little Chute, WI 54140 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: ROTATABLE AND ARTICULATED MATERIAL HANDLING APPARATUS



(57) Abstract: A material handling apparatus for mounting on a support structure. The material handling apparatus comprises a telescopic riser portion coupled to the support structure. A telescopic boom portion is coupled to the riser portion. A telescopic jib portion is coupled to the boom portion. A hook is coupled to the jib portion. A control apparatus is coupled to each of the riser, boom, and jib portions. Wherein, each of the telescopic portions can be independently, selectively moved in a push-pull mode to manipulate material.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,*

LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:

- *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.